

### ABSTRACT

A gas turbine adapted to operate in a highly diluted mode comprises a compressor 3 adapted to compress oxidant 5; a combustion chamber 3 adapted to accept the compressed oxidant 7 and provide an exit means for flue gas 9; a turbine 4; and a flue gas re-circulation means 12,13 adapted to re-circulate the flue gas 9 from the combustion chamber 3 and mix the said flue gas with the compressed oxidant 7 from the compressor 2 in order to provide a highly diluted mode of combustion with a flue gas re-circulation rate of from 100% to 200%.

Figure 1